



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,009	02/15/2007	Reinhard Weiberle	10191/4639	5977
26646 7590 03/03/2009 KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004				
EXAMINER				
TREAT, WILLIAM M				
ART UNIT		PAPER NUMBER		
2181				
MAIL DATE		DELIVERY MODE		
03/03/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/577,009

Applicant(s)

WEIBERLE ET AL.

Examiner

William M. Treat

Art Unit

2181

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-36 is/are rejected.
- 7) ☒ Claim(s) 37-38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

1. Claims 19-38 are presented for examination.
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claims 19-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grochowski et al. (Patent No. 6,615,366) in view of Moy et al. (Patent No. 6,947,047).
5. Grochowski substantially taught the invention of exemplary claim 19 including: a method for switching between at least two operating modes of a processor unit that includes at least two execution units for running programs (col. 3, lines 57-67), comprising: assigning at least one identifier to at least the programs, the identifier allowing a differentiation between the at least two operating modes; switching between the operating modes as a function of the identifier such that the processor unit runs the programs according to the assigned operating mode (col. 9, lines 61-65).

6. As to the phrase, "wherein the identifier (which determines mode switching) is a part of at least a program", Grochowski did not teach that the identifier was a part of the program. However, Moy makes clear that embedding an identifier which determines mode switching in the program was a known technique for mode switching at the time of applicants' invention (col. 14, lines 15-30). Whether one switches modes using Grochowski's technique or Moy's technique is merely a design choice.

7. MPEP 2141 reads, in part, as follows:

The Supreme Court in *KSR* reaffirmed the familiar framework for determining obviousness as set forth in *Graham v. John Deere Co.* (383 U.S. 1, 148 USPQ 459 (1966)), but stated that the Federal Circuit had erred by applying the teaching-suggestion-motivation (TSM) test in an overly rigid and formalistic way. *KSR*, 550 U.S. at, 82 USPQ2d at 1391. Specifically, the Supreme Court stated that the Federal Circuit had erred in four ways: (1) "by holding that courts and patent examiners should look only to the problem the patentee was trying to solve" (*Id.* at __ 82 USPQ2d at 1397); (2) by assuming "that a person of ordinary skill attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem" (*Id.*); (3) by concluding "that a patent claim cannot be proved obvious merely by showing that the combination of elements was obvious to try" (*Id.*); and (4) by overemphasizing "the risk of courts and patent examiners falling prey to hindsight bias" and as a result applying "[r]igid preventative rules that deny factfinders recourse to common sense" (*Id.*).

In *KSR*, the Supreme Court particularly emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," *Id.* at __ 82 USPQ2d at 1395, and discussed circumstances in which a patent might be determined to be obvious. Importantly, the Supreme Court reaffirmed principles based on its precedent that "the combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* at __ 82 USPQ2d at 1395.

8. The Supreme Court further stated that:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious

unless its actual application is beyond his ordinary skill. *Id.* at __82 USPQ2d at 1396. When considering obviousness of a combination of known elements, the operative question is thus "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* at __82 USPQ2d at 1396.

9. Applicants argue, in substance, that Growchowski does not teach "the identifier is at least a part of a program" and Moy does not teach that his identifier allows differentiation between operating modes. The examiner is not relying on Growchowski to teach "the identifier is at least a part of a program" and Moy to teach that his identifier allows differentiation between operating modes. Instead, it is Growchowski who taught that his identifier which is associated with a program allows differentiation between operating modes and Moy who taught it was known in the art the identifier could be part of a program. Applicants took a known device and improved it with a known technique yielding an entirely predictable result. As noted above, the Supreme Court held:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his ordinary skill.

10. As to claim 20, Grochowski taught the method as recited in Claim 19, wherein the programs contain task programs or constitute them, and the identifier is assigned to the corresponding individual task programs (col. 7, lines 19-27 and col. 9, lines 61-65).

11. As to claim 21, Grochowski taught the method as recited in Claim 19, wherein the programs are made up of individual program segments or contain them, and the

identifier is assigned to the corresponding individual program segments (col. 3, lines 57-64 and col. 9, lines 61-65).

12. As to claim 22, Grochowski taught the method as recited in Claim 19, wherein the programs are made up of individual program instructions, and the identifier is assigned to the corresponding individual program instructions. Grochowski never defines a lower limit for his program segments in terms of number of instructions. His claim for a program segment in his claim 17 must inherently encompass a single instruction. Also, his embodiment where the OS recognizes the mode of execution and schedules appropriate mode switch instructions would enable a program segment as small as one instruction (col. 7, lines 8-18 and lines 28-39).

13. As to claim 23, Grochowski taught the method as recited in Claim 19, wherein the programs are part of an operating system of the processor unit or constitute the operating system (col. 3, lines 30-45).

14. As to claim 24, Grochowski taught the method as recited in Claim 19, wherein the programs are used for controlling operating sequences of a vehicle. Grochowski's claim 1 is for a processor which can switch back and forth between a high reliability mode and a high performance mode, as applicants' system does. The language of Grochowski's claim 1 related to a processor is so broad as to inherently encompass a processor running programs to control operating sequences of a vehicle.

15. As to claim 25, Grochowski taught the method as recited in Claim 19, wherein a first operating mode is provided which corresponds to a safety mode in which the two execution units run identical programs redundantly (col. 3, lines 55-67).

16. As to claim 26, Grochowski taught the method as recited in Claim 25, wherein conditions or results obtained while the programs are run are compared for agreement, errors being detected if there is a discrepancy (col. 11, lines 10-20).

17. As to claim 27, Grochowski taught the method as recited in Claim 25, wherein the programs are run synchronously (col. 5, lines 62-64).

18. As to claim 28, Grochowski taught the method as recited in Claim 19, wherein in the second operating mode, which corresponds to a performance mode, each execution unit runs different programs (col. 5, lines 64-65).

19. As to claim 29, Grochowski taught the method as recited in Claim 19, wherein the identifier is in the form of at least one bit (col. 9, lines 61-65).

20. As to claim 30, Grochowski taught the method as recited in Claim 19, wherein a program instruction provided that generates an identifier indicating if the program is to be run in the first or second operating mode (col. 4, lines 50-62). Also, in the embodiment where a predicated mode switch instruction is used (col. 9, lines 61-65), it is inherently compiler/translator instructions which predicate the code with one or more bits.

21. As to claim 31, Grochowski taught the method as recited in Claim 19, wherein the identifier is written to a specific memory area (col. 4, lines 50-62).

22. As to claim 32, Grochowski taught the method as recited in Claim 31, wherein the identifier is generated by an instruction provided in an instruction set of the processor unit (see paragraph 16, *supra*).

23. As to claim 33, Grochowski taught the method as recited in Claim 32, wherein the identifier is generated by a write instruction. Inherently, it will be some form of write instruction which writes to the CSB registers 124(a) and 124(b) (col. 4, lines 50-62).

24. As to claims 34-36, they fail to teach or define over rejected claims 1-33.

25. Applicants used a known technique to improve a known device. The result of the modification was entirely predictable for one of ordinary skill. All the elements necessary to produce applicants' invention were known in the art. How one combined such elements to produce applicants' invention was also known in the art. Evidence of this is that applicants' disclosure lacks any detailed description of novel circuitry necessary to implement applicants' invention. Absent some secondary considerations, not in evidence at this time, applicants' invention of claims 19-36 is obvious over the combination of prior art presented.

26. Applicant's arguments related to claims 19-36 filed 7/21/2008 have been fully considered but they are not persuasive.

27. See the preceding rejection of applicants' claims 19-36.

28. Claims 37 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

29. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

30. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

31. Any inquiry concerning this communication should be directed to William M. Treat at telephone number (571) 272-4175.

32. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/William M. Treat/

Primary Examiner, Art Unit 2181